WHAT IS CLAIMED IS:

1.   A pharmaceutical composition for treatment of a disease, wherein the composition comprises a pharmaceutically acceptable carrier or excipient and at least one modulator that binds to or interferes with the activity of any one of LRP4, LRP8, LRP2 (megalin) and active fragments thereof.

2.   The composition of claim 1, wherein the modulator is selected from a small molecule, an RNAi molecule, an anti-sense molecule, and a ribozyme.

· 3.   The composition of claim 1, wherein the modulator is an antibody.

4.   The composition of claim 3, wherein the antibody is a human or humanized antibody.

5: -   The composition of claim 3, wherein the antibody is a selected from polyclonal antibodies, monoclonal antibodies, single chain antibodies, an agonist antibody, an antagonist antibody, a neutralizing antibody, and active fragments thereof.

6.   The composition of claim 5, wherein the active fragment is a fragment that binds specifically to an antigen or an epitope. ·

7.   The composition of claim 5, wherein the active fragment is an antigen-binding fragment, an Fc fragment, a cdr fragment, a V_H fragment, a V_L fragment, or a framework fragment.

8.   The composition of claim 3, wherein the antibody comprises at least one domain selected from a variable region of an immunoglobulin, a constant region of an immunoglobulin, a heavy chain of an immunoglobulin, a light chain of an immunoglobulin and an antigen-binding region of an immunoglobulin.

9.   The composition of claim 1, wherein the disease is a proliferative disease.

10.   The composition of claim 1, wherein the modulator is a nucleic acid molecule.

11.   The composition of claim 3, wherein the antibody specifically binds to or interferes with the activity of a sequence selected from SEQ ID NOs: 10-18 and SEQ ID NOs: 28-126.

12.   The composition of claim 3, wherein the antibody specifically binds to or interferes with the activity of a ligand of any one of LRP4, LRP8, LRP2 (megalin)

and active fragments thereof.

13.   A method of treatment of a disease in a subject, comprising the steps of:

(a)   providing the composition of any of claims 1 – 12; and

(b)   administering the composition to the subject.

14.   The method of claim 13, wherein the disease is a proliferative disease.

15.   The method of claim 14, wherein the proliferative disease is psoriasis.

16.   The method of claim 14, wherein the proliferative disease is a tumor.

17.   The method of claim 16, wherein the tumor is selected from splenic tumor, cervical tumor, leukemia, stomach tumor, liver tumor, thyroid tumor, skin tumor, breast tumor, lung tumor, kidney tumor, brain tumor, colon tumor, ovarian tumor, pancreatic tumor, and lymphoma.

18.   The method of claim 13, wherein the disease is a degenerative disease.

19.   The method of claim 18, wherein the degenerative disease is a degenerative neural disease.

20.   The method of claim 19, wherein the degenerative neural disease is Alzheimer's disease.

21.   The method of claim 16, wherein the tumor is a colorectal tumor.

22.   The method of claim 21, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP4, LRP8, and active fragments thereof.

23.   The method of claim 22, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-15, 17-18, 28-48, and 112-126.

24.   The method of claim 16, wherein the tumor is a liver tumor.

25.   The method of claim 24, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP4, LRP8, and active fragments thereof.

26.   The method of claim 25, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-15, 17-18, 28-48, and 112-126.

27.   The method of claim 16, wherein the tumor is selected from a lung

tumor, splenic tumor, cervical tumor, stomach tumor, breast tumor, leukemia and lymphoma.

28. The method of claim 27, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP8 and active fragments thereof.

29. The method of claim 28, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-15 and SEQ ID NOs:112-126.

30. The method of claim 16, wherein the tumor is an ovarian tumor.

31. The method of claim 30, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP2 (megalin), LRP8, and active fragments thereof.

32. The method of claim 31, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-16 and 49-126.

33. The method of claim 16, wherein the tumor is kidney tumor.

34. The method of claim 33, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP2, LRP4, and active fragments thereof.

35. The method of claim 34, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 16-18 and 28-111.

36. The method of claim 16, wherein the tumor is a pancreatic tumor.

37. The method of claim 36, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP8 and active fragments thereof.

38. The method of claim 37, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-15 and 112-126.

39. The method of claim 16, wherein the tumor is a thyroid tumor.

40. The method of claim 39, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP2, LRP4, and active fragments thereof.

41. The method of claim 40, wherein the antibody specifically binds to or

interferes with at least one polypeptide selected from SEQ ID NOs: 16-18 and 28-111.

42. The method of claim 16, wherein the tumor is skin cancer.

43. The method of claim 42, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP2 (megalin), LRP8, and active fragments thereof.

44. The method of claim 43, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-16 and 49-126.

45. The method of claim 16, wherein the tumor is a brain tumor.

46. The method of claim 45, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP2 (megalin) and active fragments thereof.

47. The method of claim 46, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 16 and 49-111.

48. The method of claim 18, wherein the composition comprises an antibody that specifically binds to or interferes with the activity of any one of LRP8 and active fragments thereof.

49. The method of claim 48, wherein the antibody specifically binds to or interferes with at least one polypeptide selected from SEQ ID NOs: 10-15 and 112-126.

50. The method of claim 13, wherein the composition is administered locally or systemically.

51. The method of claim 13, wherein the composition is administered by intravenous, intraperitoneal, intratumor, intralesion, transdermal, intrathecal, subcutaneous, intranasal administration or by inhalation.

52. An isolated polypeptide comprising an amino acid sequence, wherein the amino acid sequence comprises a sequence of at least 6 amino acid residues and is selected from SEQ ID NOs: 28-126.

53. An isolated nucleic acid molecule, wherein the nucleic acid molecule comprises a polynucleotide sequence that encodes the polypeptide of claim 52.

54. A vector comprising the nucleic acid molecule of claim 53 and a regulatory sequence that regulates the expression of the nucleic acid molecule.

55. A modified cell comprising the nucleic acid molecule of claim 53 or

the vector of claim 54.

56.   An isolated antibody comprising an antigen-binding domain that binds to or interferes with the activity of a polypeptide of claim 52.

57.   The antibody of claim 56, wherein the antibody is a human antibody.

58.   The antibody of claim 56, wherein the antibody is a humanized antibody.

59.   The antibody of claim 56, wherein the antibody is a selected from polyclonal antibodies, monoclonal antibodies, single chain antibodies, an agonist antibody, an antagonist antibody, a neutralizing antibody, and active fragments thereof.

60.   The antibody of claim 59, wherein the active fragment is a fragment of an immunoglobulin and the fragment binds specifically to an antigen or an epitope.

61.   The antibody of claim 59, wherein the active fragment is an antigen-binding fragment, an Fc fragment, a cdr fragment, a V_H fragment, a V_L fragment, or a framework fragment.

62.   The antibody of claim 56, wherein the antibody comprises at least one domain selected from a variable region of an immunoglobulin, a constant region of an immunoglobulin, a heavy chain of an immunoglobulin, a light chain of an immunoglobulin, and an antigen-binding region of an immunoglobulin.

63.   The antibody of claim 56, wherein the antibody is displayed on a bacteriophage.

64.   The antibody of claim 56, wherein the antibody binds to the polypeptide of claim 52.

65.   The antibody of claim 56, wherein the antibody binds to a ligand of the polypeptide of claim 52.

66.   The antibody of any one of claims 56 – 65, wherein the antibody is associated with a therapeutic agent.

67.   The antibody of claim 66, wherein the therapeutic agent is selected from toxins, radioactive isotopes, cytotoxic agents, and chemotherapeutic agents.

68.   The antibody of claim 56, wherein the antibody is an agonist antibody.

69.   The antibody of claim 56, wherein the antibody is an antagonist antibody.

70.   A method for detecting a polypeptide in a biological sample comprising:

(a) contacting the biological sample with the antibody of any one of claims 56-69; and

(b) determining the presence of an antibody/polypeptide complex.

71.   A composition comprising a polypeptide and a modulator, wherein the modulator specifically interferes with the activity or binding of the polypeptide, and wherein the polypeptide is selected from SEQ ID NOS: 10-18 and 28-126.

72.   The composition of claim 71, wherein the modulator is an antibody.

73.   The composition of claim 71, wherein the modulator is a small molecule. -

74.   The composition of claim 72, wherein the antibody is a selected from polyclonal antibodies, monoclonal antibodies, single chain antibodies, an agonist antibody, an antagonist antibody; a neutralizing antibody, and active fragments thereof.

75.   The composition of claim 74, wherein the active fragment is a fragment of an immunoglobulin and the fragment binds specifically to an antigen or an epitope.

76.   The composition of claim 74, wherein the active fragment is an antigen binding fragment, an Fc fragment, a cdr fragment, a V_H fragment, a V_L fragment, or a framework fragment.

77.   The composition of claim 72, wherein the antibody comprises at least one domain selected from a variable region of an immunoglobulin, a constant region of an immunoglobulin, a heavy chain of an immunoglobulin, a light chain of an immunoglobulin and an antigen-binding region of an immunoglobulin.